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REMARKS

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- Claims 1 to 24 are pending in this application
- Claims 1, 5, 9, 13, and 19 to 24 have been amended herein
- Claims 1, 5, 9, 13, and 19 to 24 are independent claims

ALLOWABLE SUBJECT MATTER

The Applicants thank the Examiner for indicating that claim 10 includes allowable subject matter. However, Applicants respectfully decline to amend claim 10 at this time because the Applicants believe claim 9, as amended, from which claim 10 depends, is allowable for the reasons detailed below.

SECTION 102 REJECTIONS

Claims 5, 8, 13, 16, 22, and 24 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,481,251 to Meier et al. (hereinafter "Meier"). The Applicants respectfully submit that Meier does not disclose every element recited in claims 5, 8, 13, 16, 22, and 24. Thus, Meier cannot anticipate these claims.

More specifically, claim 5 has been amended to recite a method of dequeuing a flow from a scheduling queue which includes, among other features, examining "an empty indicator of a plurality of empty indicators" associated with the scheduling queue. The Applicants submit that Meier does not disclose at least this feature. In particular, Meier does not disclose a plurality of empty indicators. While Meier does disclose a bit which indicates when a store queue is empty, this is not the same as a plurality of empty indicators as recited in claim 5.

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More specifically, the bit disclosed by *Meier* merely indicates whether or not there is an entry in the store queue, signifying that there is work to be done. However, the plurality of empty indicators of the present invention not only signify when a scheduling queue is empty, they also provide a mechanism for determining which scheduling queue should be serviced in the next pass through the round-robin selection process. Hence, unlike the reference, the present invention includes a "plurality of empty indicators" associated with the scheduling queue.

Further, *Meier* operates in the context of a computer processor whereas the present invention operates in the context of a network processor. *Meier* discloses reordering loads and stores in a user computer program executed by, for example, a personal computer processor. There is no need for a plurality of empty indicators in the system of *Meier*. In contrast, the present invention relates to a network processor which operates to make connections and assign limited bandwidth fairly and efficiently in order to transmit data over relatively large distances. There is no user program running at all. Instead, the plurality of empty indicators of the present invention provide a mechanism for determining which scheduling queue should be serviced in the next pass.

Furthermore, the Applicants respectfully submit that *Meier* does not disclose a method of dequeuing a flow from a scheduling queue as recited in claim 5. Instead, *Meier* discloses a processor which analyzes where to move data locally within processor memory and, based on the analysis, moves the data to a specific location. For example, *Meier* discloses a store queue and a store queue number assignment circuit. The store queue has a plurality

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of store queues which store address and data information which correspond to a memory operation. The store queue number assignment circuit receives a store memory operation and assigns a store queue number to the store memory operation where the store queue number is indicative of a first one of a plurality of store queues entries. See e.g., col. 2, ll. 44-51. Accordingly, *Meier* cannot anticipate claim 5 because the methods of servicing and dequeuing a flow according to the present invention do not involve the processing described by *Meier*. Since the present invention relates to transmitting weighted fair queue flow data over a network, the present invention does not contain storage addresses or data, or store queue numbers whereas *Meier* requires this. Therefore, the Applicants request that the rejection be withdrawn. Similarly, claim 8, which depends from claim 5, is also patentable for at least the same reasons.

Likewise, claim 13 has been amended to recite a method of dequeuing a flow from a scheduling queue which includes, among other features, examining "an empty indicator of a plurality of empty indicators." As detailed above, *Meier* does not disclose a plurality of empty indicators or a method of dequeuing a flow from a scheduling queue. Therefore, claim 13, along with claim 16 which depends there from, is patentable over *Meier* and the Applicants respectfully request that the rejection be withdrawn.

Claim 22 recites a computer program product adapted to dequeue a flow from a scheduling queue, comprising, among other features, a medium adapted to "examine an empty indicator of a plurality of empty indicators." As detailed above, *Meier* does not disclose a

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plurality of empty indicators or dequeuing a flow from a scheduling queue. As such, claim 22 is patentable over Meier and the Applicants respectfully request that the rejection be withdrawn.

Claim 24 recites a computer program product adapted to dequeue a flow from a scheduling queue, comprising, among other features a medium adapted to examine "an empty indicator of a plurality of empty indicators." As discussed above, Meier does not disclose this feature. Thus, claim 24 is patentable over Meier and the Applicants respectfully request that the rejection be withdrawn.

Claims 9, 11, 12, and 23 stand rejected under 25 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,810,043 to Naven et al., (hereinafter "Naven"). As amended, claim 9 is patentable over Naven.

In particular, claim 9 has been amended to recite a method of enqueueing a flow comprising, among other features, placing "an empty indicator of a plurality of empty indicators" associated with the scheduling queue in a condition to indicate that the scheduling queue is not empty. The Applicants respectfully submit that Naven does not disclose this feature. While Naven does disclose that a bit is "0" when a storage location is empty, Naven does not disclose a plurality of empty indicators. See e.g., col. 8, ll. 26-28. The Applicants respectfully submit that the difference is significant in that the bit disclosed by Naven merely indicates whether or not there is an entry in the store queue, signifying that there is work to be done. However, as noted above, the plurality of empty indicators of the present invention not only signify when a scheduling queue is empty, they also provide a mechanism for

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determining which scheduling queue should be serviced in the next pass through the round-robin selection process. As such, claim 9 is patentable over Naven and the Applicants respectfully request that the rejection be withdrawn. Likewise, claims 11 and 12, which depend from claim 9, are also patentable for at least the same reasons.

Claim 23 has been amended to recite a computer program product comprising, among other features, a medium adapted to "place an empty indicator of a plurality of empty indicators" associated with the scheduling queue in a condition to indicate that the scheduling queue is not empty. As discussed above, Naven does not disclose this feature. Accordingly, claim 23 is patentable over Naven and the Applicants respectfully request that the rejection be withdrawn.

#### SECTION 103 REJECTIONS

Claims 1-4, 19, and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Applicants' Related Art (hereinafter "the ARA") in view of Meier. The Applicants submit that neither the ARA, nor Meier, either singularly or in combination, disclose or suggest all the features recited in claims 1-4, 19, and 21. Thus, these claims are patentable over the cited references.

More specifically, claim 1 has been amended to recite a scheduler for a network processor, comprising, among other features, "a plurality of empty indicators," each empty indicator being associated with a respective scheduling queue to indicate whether the respective scheduling queue is empty. The Applicants submit that neither the ARA nor Meier, either singularly or in

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combination, disclose or suggest this feature. As correctly pointed out in the Office Action, the ARA does not disclose one or more empty indicators. See e.g., the Office Action at page 5. Similarly, as previously discussed, Meier does not disclose a plurality of empty indicators. Accordingly, claim 1, along with claims 2-4 which depend there from, is patentable over the cited references and the Applicants respectfully request that the rejection be withdrawn.

Claim 19 has been amended to recite a scheduler comprising, among other features, "a plurality of empty indicators", each empty indicator of the plurality of empty indicators being associated with a respective scheduling queue to indicate whether the respective scheduling queue is empty. As mentioned above, neither the ARA nor Meier, either singularly or in combination, disclose or suggest a plurality of empty indicators. Accordingly, the Applicants respectfully submit that claim 19 is patentable over the ARA in view of Meier and request that the rejection be withdrawn.

Claim 21 has been amended to recite a scheduler which includes, among other features, "a plurality of empty indicators." As detailed above, none of the cited references, either singularly or in combination, disclose or suggest this feature. Thus, claim 21 is patentable over the ARA in view of Meier and the Applicants respectfully request that the rejection be withdrawn.

Claims 17 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Meier in view of Naven. The Applicants respectfully submit that claims 17 and 18 are patentable over the cited references.

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As detailed above, *Meier* fails to disclose each and every element recited in claim 13 as amended, the base claim from which claims 17 and 18 depend. Similarly, *Meier* fails to even suggest all the features recited in claim 13. In addition, *Naven* fails to address the shortcomings of *Meier*, namely a plurality of empty indicators. Therefore, claims 17 and 18 are patentable over *Meier* in view of *Naven* and the Applicants respectfully request that the rejection be withdrawn.

Claims 6 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Meier* in view of "Estimating Clock Speeds for ATM SWITCH Architecture" to *Lyons et al.* (hereinafter "*Lyons*"). Claims 6 and 14 are patentable over the cited references.

As detailed above, *Meier* does not disclose each and every element recited in amended claims 5 and 13, the base claims from which claims 6 and 14 respectively depend. Likewise, *Meier* does not disclose or even suggest a plurality of empty indicators. Moreover, *Lyons* does not disclose or suggest the features missing from *Meier*. As such, claims 6 and 14 are patentable over the cited references and the Applicants respectfully request that the rejection be withdrawn.

Claims 7 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Meier* in view of *Lyons* and in view of *Naven*. The Applicants respectfully submit that claims 7 and 15 are patentable over the cited references. As discussed above, *Meier* does not disclose each and every element recited in amended claims 5 and 13, the base claims from which claims 7 and 15 respectively depend. In addition, neither *Lyons* nor *Naven*, either singularly or in combination, disclose or suggest the

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missing feature from Meier. Therefore, claims 7 and 15 are patentable over the cited references and the Applicants respectfully request that the rejection be withdrawn.

Claim 20 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the ARA in view of Meier and in view of Naven. The Applicants respectfully submit that claim 20 is patentable over the ARA in view of Meier and in view of Naven. More specifically, claim 20 has been amended to recite a scheduler having, among other features, "a plurality of empty indicators." As detailed above, neither the ARA, Meier, nor Naven, either singularly or in combination, disclose or suggest this feature. Therefore, the Applicants submit that claim 20 is patentable over the cited references and respectfully request that the rejection be withdrawn.

#### CONCLUSION

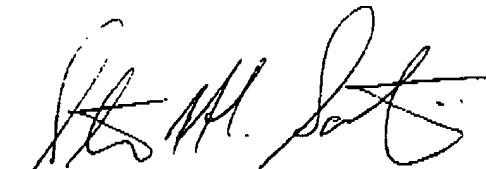
The Applicants believe all the claims are in condition for allowance, and respectfully request reconsideration and allowance of the same.

A Request for Extension of Time is enclosed herewith, with authorization to charge any extension fee to Deposit Account No. 09-0465. The Applicants do not believe any other Request for Extension of Time is required but if it is, please accept this paragraph as an additional Request for Extension of Time and authorization to charge the requisite extension fee to Deposit Account No. 09-0465. The Applicants do not believe any other fees are due regarding this amendment. If any other fees are required, however, please charge Deposit Account No. 09-0465. The

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Applicant encourages the Examiner to telephone Applicant's attorney should any issues remain.

Respectfully Submitted,



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Dated: July 24, 2006  
Tarrytown, New York